

# Annotated catalogue of Iranian burrower bugs (Heteroptera, Pentatomoidea, Cydnidae)

Hassan Ghahari<sup>1</sup>, Frédéric Chérot<sup>2,5</sup>, Rauno E. Linnauori<sup>3</sup>, Hadi Ostovan<sup>4</sup>

**1** Department of Agriculture, Islamic Azad University, Share Rey Branch, Tehran, Iran **2** Laboratoire de Systématique et d'Ecologie animales, CP 160/13, Av F. D. Roosevelt, 50, B-1050 Bruxelles, Belgique **3** Saukkokuja 10, FIN-21220 Raisio, Finland **4** Department of Entomology, Fars Science and Research Branch, Islamic Azad University, Marvdasht, Iran **5** Service Public de Wallonie, DG03, DEMNA, av. Maréchal Juin, 23, B-5030 Gembloux, Belgique

Corresponding author: Frédéric Chérot (frédéric.cherot@spw.wallonie.be)

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## Abstract

A catalogue of burrower bugs (Heteroptera, Pentatomoidea, Cydnidae) of Iran is provided. A total of 58 species from 5 subfamilies, 6 tribes and 22 genera is listed in this paper. Of these, 14 species are newly recorded from Iran: *Byrsinus fossor* (Mulsant & Rey, 1866), *Byrsinus nigroscutellatus* (Montandon, 1900), *Byrsinus penicillatus* Wagner, 1964, *Canthophorus wagneri* Asanova, 1964, *Crocistethus waltlianus* (Fieber, 1837), *Geotomus antennatus* Signoret, 1883, *Sehirus cypriacus* Dohrn, 1860, *Sehirus dissimilis* Horváth, 1919, *Sehirus luctuosus* Mulsant & Rey, 1866, *Sehirus ovatus* (Herrich-Schaeffer, 1840), *Sehirus parens* Mulsant & Rey, 1866, *Sehirus planiceps* Horváth, 1895, *Stibaropus henkei* (Jakovlev, 1874) and *Tritomegas delagrangei* (Puton, 1888). Additional Iranian records are provided for *Byrsinus laeviceps* (Kerzhner, 1972), *Exosehirus marginatus* (Signoret, 1881b), *Fromundus pygmaeus* (Dallas, 1851), *Geotomus elongatus* (Herrich-Schaeffer, 1840), *Geotomus punctulatus* (Costa, 1847), *Ochetostethus sahlbergi* Wagner, 1952 and *Tritomegas bicolor* (Linnaeus, 1758).

## Keywords

Heteroptera, Cydnidae, Fauna, Iran

## Introduction

The burrower or burrowing bugs (Insecta: Heteroptera: Cydnidae) include about 680 species worldwide, mainly in tropical parts of the both Old and New Worlds (Lis 2006). As suggested by their common name, a majority of cydnids are adapted to burrowing in the ground, feeding on roots of plants. The family does not include major agricultural pests (Lis *op. cit.*; Lis et al. 2000), although an outbreak in populations of some species could cause serious damage (Froeschner 1960, 1988).

Even if the monophyly and the delimitation of family Cydnidae has been questioned recently (Grazia et al. 2008; Pluot-Sigwalt and Lis, 2008), these insects are undoubtedly closely related to the Pentatomidae. To such an extent that they were classified as a subfamily of the Pentatomidae in early literature.

The Cydnidae can be separated from the Pentatomidae by a combination of:

- (a) their ovoid and convex body, frequently shinning, black or brown;
- (b) their broad, flattened head and legs adapted for digging;
- (c) their antenna generally 5-segmented and their tarsi generally 3-segmented and
- (d) their tibial armament. Pentatomidae have tibial hairs, but lack stout, hardened tibial spines that are characteristic of the Cydnidae.

The fauna of Iranian Cydnidae has been poorly studied. The main works concerning Cydnidae from Iran are the following: Hoberlandt (1955), Safavi (1959), Baroughi (1978), Modarres Awal (1987), Hoberlandt (1995), Modarres Awal (1996a, b, 1997), Lis (1998, 1999), Linnavuori (2004), Lis (2006), Magnien (2006), Linnavuori (2007), Modarres Awal (2008), Askari et al. (2009), Hassanzadeh et al. (2009), and Sadeghi et al. (2009). In a recent checklist of Iranian agricultural pests (Modarres Awal, 1997: 71), only 18 species of Cydnidae were listed. Magnien (2006) described one new species that occurs in Iran and Linnavuori (2004, 2007) and Modarres Awal (2008) reported several other new species records for Iran. So, prior to our study, the total number of cydnids species recorded from Iran was 44.

We provide hereafter for the first time a catalog of Iranian Cydnidae, including a total of 58 species, 14 of which constitute new records for Iran. The new and additional records for Iran were analyzed by the third author and the specimens are preserved in his collection.

The arrangement of synonymies is adapted from Lis (1999, 2006); the distributional data including distribution outside Iran for each species were taken from Lis (2006). The classification of subfamilies and tribes follows in part Froeschner (1960), Lis (1994, 1999, 2006) and Pluot-Sigwalt and Lis (2008).

## Catalogue

**Subfamily Amaurocorinae Wagner, 1963**

**Tribe Amaurocorini Wagner, 1963**

**Genus *Amaurocoris* Stål, 1865**

### 1) *Amaurocoris curtus* (Brullé, 1839)

*Cydnus curtus* Brullé, 1839: 81 (as new species).

*Amaurocoris curtus*: Lethierry and Severin 1893: 76 (new combination).

*Iran records*: Hoberlandt 1955: 122, 1995: 187–188; Linnavuori 2004: 285, 2007: 89; Lis 1999: 218–219, 2006: 138; Modarres Awal 1996a: 127, 1997: 71; Safavi 1959: 31; Wagner 1968: 438.

*Distribution in Iran*: Abbassi, Bushehr, Fars, Hormozgan, Kerman, Khorasan, Khuzestan, Sistan & Baluchestan provinces.

*Distribution outside Iran*: Afghanistan, Algeria, Armenia, Azerbaidjan, Canary Islands, Cape Verde Islands, Cyprus, Egypt, Eritrea, Ethiopia, Greece, India (?), Iraq, Israel, Kenya, Jordan, Libya, Mauretania, Morocco, Pakistan, Saudi Arabia, Senegal, Somalia, Sudan, Syria, Tadzhikistan, Tunisia, Turkey, Turkmenistan, Uzbekistan, Yemen.

### Genus *Linospa* Signoret, 1881a

#### 2) *Linospa candida* (Horváth, 1889)

*Amaurocoris candidus* Horváth, 1889: 173 [name only].

*Linospa candida*: Lis 1993a: 70 (new combination).

*Iran records*: Hoberlandt 1995: 188–189 [under the original combination]; Linnavuori 2007: 89; Lis 1999: 219, 2006: 138.

*Distribution in Iran*: Khorasan province.

*Distribution outside Iran*: Afghanistan, Kazakhstan, Turkmenistan, Uzbekistan.

#### 3) *Linospa orbicularis* (Jakovlev, 1885)

*Amaurocoris orbicularis* Jakovlev, 1885: 110 (as new species).

*Linospa orbicularis*: Lis 1993a: 72 (new combination).

*Iran records:* Hoberlandt 1995: 188; Lis 1999: 219, 2006: 139; Seidenstücker 1957: 73 [under the name *A. aspericollis* Puton, 1886 a junior synonym]; Wagner 1968: 438 [under the combination *A. orbicularis* Jakovlev, 1885].

*Distribution in Iran:* Abbassi, Kerman, Khorasan, Khuzestan, Sistan & Baluchestan provinces.

*Distribution outside Iran:* Afghanistan, Algeria, Canary Islands, Egypt, Eritrea, Iraq, Israel, Libya, Morocco, Pakistan, Saudi Arabia, Sudan, Tadzhikistan, Tunisia, Turkmenistan, Uzbekistan, Yemen.

### **Subfamily Amnestinae Hart, 1919**

#### **Tribe Amnestini Hart, 1919**

#### **Genus *Amnestus* Dallas, 1851**

#### **4) *Amnestus raunoi* Lis, 1998**

*Amnestus raunoi* Lis, 1998: 5–7 (as new species).

*Iran records:* Linnavuori 2007: 88; Lis 1998: 5–7, 2006: 119.

*Distribution in Iran:* Gilan province.

*Distribution outside Iran:* Unknown, apparently endemic to Iran.

*Comment:* *Amnestus raunoi* is very close to the species *Amnestus pusillus* Uhler. These two species were studied and compared taxonomically by Lis (1998).

### **Subfamily Cephalocteinae Mulsant & Rey, 1866**

#### **Tribe Scaptocorini Froeschner, 1960**

#### **Genus *Stibaropus* Dallas, 1851**

#### **5) *Stibaropus henkei* (Jakovlev, 1874)**

*Pachycnemis henkei* Jakovlev, 1874a: 56 (as new species).

*Stibaropus henkei*: Signoret 1881a: 46 (new combination).

*Material examined:* East Azarbaijan province, Arasbaran (835m), 1♂, 3♀♀, September 2005. **New record for Iran.**

*Distribution outside Iran:* Armenia, Azerbaijan, Bulgaria, Hungary, Kazakhstan, Kirgizia, Romania, Russia (Central and South European Territory), Tadzhikistan, Turkmenistan, Ukraine, Uzbekistan.

**Subfamily Cydninae Billberg, 1820**

**Tribe Cydnini Billberg, 1820**

**Genus *Cydnus* Fabricius, 1803**

**6) *Cydnus aterrimus* (Forster 1771)**

*Cimex aterrimus* Forster, 1771: 71 (as new species).

*Cydnus aterrimus*: Dallas 1851: 121 (new combination).

*Cydnus infernalis* Kiritshenko 1966: 799 (as new species ; the synonymy by Lis 1996: 405).

*Iran records*: Askari et al. 2009: 562; Baroughi 1978: 22; Hassanzadeh et al. 2009: 22; Hassanzadeh et al. 2009: 529; Hoberlandt 1955: 122, 1995: 187; Lindberg 1938: 89 ; Linnauori 2007: 88; Lis 1999: 180, 2006: 124; Modarres Awal 1987: 19, 1996a: 127, 1997: 71, 2008: 246; Sadeghi et al. 2009: 499; Safavi 1959: 31; Wagner 1968: 438.

*Distribution in Iran*: Bushehr, East Azarbaijan, Fars, Golestan, Gorgan, Kerman, Khorasan, Mazandaran, Sistan & Baluchestan, Tehran, Zanjan provinces.

*Distribution outside Iran*: Afghanistan, Albania, Algeria, Armenia, Austria, Azerbaijan, Bangladesh, Belgium, Bosnia Herzegovina, Bulgaria, Canary Islands, China (Neimenggu, Ningxia), Congo (?), Crimea, Croatia, Cyprus, Czech Republic, Egypt, France, Georgia, Germany, Greece, Hungary, Iraq, India, Israel, Italy, Jordan, Kazakhstan, Kirgizia, Lebanon, Libya, Lithuania, Luxembourg, Macedonia, Madeira, Malta, Malaya (?), Malta, Moldavia, Morocco, Netherlands, Pakistan, Poland, Portugal, Romania, Russia (South European Territory, West Siberia), Senegal, Serbia and Montenegro, Slovakia, Slovenia, South Africa (introduction), Spain, Sri Lanka, Switzerland, Syria, Tadzhikistan, Tunisia, Turkey, Turkmenistan, Ukraine, USA (introduction), Uzbekistan, West Indies (introduction), Yemen.

**Genus *Nishadana* Distant, 1899b**

**7) *Nishadana arabica* Horváth, 1919**

*Nishadana arabica* Horváth, 1919: 265 (as new species).

*Iran records*: Hoberlandt 1995: 190; Lis 2006: 120.

*Distribution in Iran*: Lorestan province.

*Distribution outside Iran*: Chad, Gambia, Ghana, Senegal, Somalia, Yemen.

Remark: the genus *Nishadana* Distant, 1899 was reclassified in the tribe Cydnini of the subfamily Cydninae by Pluot-Sigwalt and Lis (2008) on the basis of spermatheca structure.

**Tribe Geotomini Wagner, 1963****Genus *Aethus* Dallas, 1851****8) *Aethus hispidulus* (Klug, 1845)**

*Cydnus hispidulus* Klug, 1845: [10] (as new species).

*Aethus hispidulus*: Walker 1867: 154 (new combination).

*Iran records*: Hoberlandt 1995: 191; Lis 1999: 186, 2006: 126; Putshkov 1965: 35.

*Distribution in Iran*: North Iran (Putshkov 1965, without exact locality).

*Distribution outside Iran*: Afghanistan, Armenia, Azerbaijan, Cyprus, Egypt, Greece, Iraq, Israel, Jordan, Saudi Arabia, Somalia, Syria, Turkey, Turkmenistan (Kugitang-Tau Mountains), Uzbekistan.

**9) *Aethus ostiolatus* Signoret, 1882**

*Aethus ostiolatus* Signoret, 1882: 433 (as new species).

*Iran records*: Hoberlandt 1995: 183 [under the name *Aethus macrophthalmus* Wagner, 1951, a junior synonym]; Lis 1999: 187, 2006: 126; Seidenstücker, 1957: 73 [under the name *Aethus macrophthalmus* Wagner, 1951].

*Distribution in Iran*: Abbassi, Baluchestan, Bushehr, Khuzestan provinces.

*Distribution outside Iran*: Algeria, Chad, Egypt, Kenya, Saudi Arabia, Somalia, Sudan, Yemen.

**10) *Aethus pilosus* (Herrich-Schaeffer, 1834)**

*Cydnus pilosus* Herrich-Schaeffer, 1834: plate 22 and legend.

*Aethus pilosus*: Walker 1867: 148 (new combination).

*Iran records*: Hoberlandt 1955: 121, 1995: 191; Lis 1999: 188, 2006: 126 ; Modarres-Awal 1997: 71; Safavi 1959: 31.

*Distribution in Iran*: Sistan & Baluchestan province.

*Distribution outside Iran*: Afghanistan, Algeria, Cameroon, Croatia, Egypt, Ethiopia, France, Greece, Israel, Italy, Jordan, Libya, Malta, Portugal, Saudi Arabia, Senegal, Serbia and Montenegro, Spain, Syria, Tunisia, Turkey.

## Genus *Alonips* Signoret, 1881b

### 11) *Alonips acrostictus* (Distant, 1918)

*Geotomus acrostictus* Distant, 1918: 118 (as new species).

*Alonips acrostictus*: Lis 1994: 156 (new combination).

*Iran records*: Linnavuori 2004: 286; Lis 2006: 127.

*Distribution in Iran*: Hormozgan province.

*Distribution outside Iran*: China (Hainan), India, Laos, Pakistan, Sri-Lanka, Thailand, Vietnam.

### 12) *Alonips intrusus* (Wagner, 1953)

*Geotomus intrusus* Wagner, 1953: 467 (as new species).

*Alonips intrusus*: Lis 1994: 155 (new combination).

*Iran records*: Linnavuori 2004: 285; Lis 2006: 127.

*Distribution in Iran*: Hormozgan province.

*Distribution outside Iran*: Algeria, Burkina Faso, Canary Islands, Egypt, Eritrea, Iraq, Mali, Saudi Arabia, Senegal, Sudan, Tanzania, Tunisia, Yemen.

## Genus *Byrsinus* Fieber, 1860

### 13) *Byrsinus comaroffii* (Jakovlev, 1879)

*Cydnus comaroffii* Jakovlev, 1879: 21 (as new species).

*Byrsinus komaroffii*: Wagner 1965: 50 (new combination).

*Byrsinus comaroffii*: Lis 1993b: 85 (revision, spelling).

*Iran records*: Hoberlandt 1995: 185 [under the name *Aethus comaroffii* (Jakovlev, 1879)]; Lis 1999: 191, 2006: 128.

*Distribution in Iran*: Abbassi, Baluchestan, Kerman, Khorasan.

*Distribution outside Iran*: Armenia, Afghanistan, Azerbaijan, China (Neimenggu, Xinjiang), Kazakhstan, Kirgizia, Mongolia, Russia (South European Territory), Tadzhikistan, Turkmenistan, Uzbekistan.

### ***Byrsinus discus* Jakovlev, 1906**

*Byrsinus discus* Jakovlev, 1906: 52 (as new species).

*Iran records:* Putshkov 1965: 41 [under the combination *Peribyssus discus* (Jak., 1906)]; Hoberlandt 1995: 185 [under the combination *Peribyssus discus* (Jakovlev, 1906)].

*Distribution in Iran:* The mention of *Byrsinus discus* Jakovlev, 1906 from North Iran, without exact locality information, by Putshskov (1965: 41) was hypothetical. Putshskov wrote “Described from Repetek (Turkmenistan), mostly it occurs in the upper layer of sandy soil near tufts of grasses. Recorded also from Uzbekistan and certainly will be recorded from grasslands in other Central Asian countries, including (...) northern Iran...” (Translated by D. Redei, our italicization). Hoberlandt (1995: 191) recorded the species from Iran referring only to Putshskov’s work but as a “published records”. Because Lis (2006: 128) did not list *B. discus* from Iran, its presence in Iran needs confirmation.

*Distribution outside Iran:* Turkmenistan, Uzbekistan.

### **14) *Byrsinus flavigornis* (Fabricius, 1794)**

*Cimex flavigornis* Fabricius, 1794: 124 (as new species).

*Byrsinus flavigornis:* Lis 1993b: 86 (new combination).

*Iran records:* Hoberlandt 1955: 122, 1995: 190; Lis 1999: 192, 2006: 128; Mardarres-Awal, 1997: 71; Safavi 1959: 31 [under the combination *Aethus flavigornis*, doubtful data].

*Distribution in Iran:* Khuzestan.

*Distribution outside Iran:* Afghanistan, Algeria, Armenia (?), Azerbaijan (?), Belgium, Bulgaria, Byelorussia (?), Canary Islands, China (Neimenggu, Xinjiang), Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Great Britain (as migrant), Hungary, Italy, Kazakhstan, Latvia (?), Libya, Lithuania (?), Macedonia, Madeira, Malta, Moldavia, Mongolia, Morocco, Netherlands, Poland, Portugal, Romania, Russia [Central and South European Territory, East and West Siberia, Far East (?)], Serbia and Montenegro, Slovakia, Spain, Tunisia, Turkey, Turkmenistan, Ukraine.

### **15) *Byrsinus fossor* (Mulsant & Rey, 1866)**

*Cydnus (Byrsinus) fossor* Mulsant and Rey, 1866: 18 (as new species).

*Byrsinus fossor:* Walker 1867: 164 (new combination).

*Material examined:* Mazandaran province, Beshahr (57m), 1♀, September 2006. **New record for Iran.**

*Distribution in Iran:* Mazandaran province.

*Distribution outside Iran:* Armenia, Azerbaijan, Bulgaria, China (Xinjiang), France, Hungary, Kazakhstan, Romania, Russia (South European Territory), Serbia and Montenegro, Spain, Ukraine.

*Comment:* The records of *Byrsinus fossor* from Afghanistan, Egypt, Mongolia, Tadzhikistan and Turkmenistan pertain to other species of the genus, according to Lis (2006: 19).

#### 16) *Byrsinus laeviceps* (Kerzhner, 1972)

*Aethus laeviceps* Kerzhner, 1972: 363 (as new species).

*Byrsinus laeviceps*: Lis 1993b: 87 (new combination).

*Iran records:* Hoberlandt 1995: 184–185 [under the original combination]; Linnauori 2007: 88.

*Additional data:* Khorasan province, Serakhs (330m), 2♂♂, June 2001.

*Distribution in Iran:* Baluchestan, Kerman, Khorasan and Tehran provinces.

*Distribution outside Iran:* China (Xinjiang), Kazakhstan, Mongolia, Turkmenistan, Uzbekistan.

#### 17) *Byrsinus laticollis* (Wagner, 1954)

*Aethus (Cydnus) laticollis* Wagner, 1954: 1 (as new species).

*Byrsinus laticollis*: Lis 1993b: 88 (new combination).

*Iran records:* Hoberlandt 1995: 183 (under the name *Aethus laticollis*).

*Distribution in Iran:* Tehran province.

*Distribution outside Iran:* Canary Islands, Italy, Libya, Madeira, Morocco, Spain, Tunisia.

***Byrsinus minor* Wagner, 1964.** The record of *Byrsinus minor* Wagner, 1964 from Gilan province (Assalem, 8 km NW Bandar-Pahlavi) by Wagner (1968: 437), also quoted by Hoberlandt (1995: 191), is erroneous, according to Lis (2006: 129). Consequently, this species is still not known from Iran.

#### 18) *Byrsinus nigroscutellatus* (Montandon, 1900)

*Byrsinocoris nigroscutellatus* Montandon, 1900: 157 (as new species).

*Byrsinus nigroscutellatus*: Lis 2003: 40 (new synonymy and combination).

*Material examined:* Ilam province, Ilam (1430m), 1♂, 3♀♀, May 2004. **New record for Iran.**

*Distribution outside Iran:* Algeria, Chad, Egypt, Libya, Mauretania, Oman.

**19) *Byrsinus pallidus* (Puton, 1887)**

*Cydnus pallidus* Puton in Puton and Lethierry, 1887: 298 (as new species).

*Byrsinus pallidus*: Lis 1993b: 89 (new combination).

*Iran records*: Hoberlandt 1995: 184 [under the name *Aethus pallidus* (Puton, 1887)]; Linnauori 2004: 285; Lis 1999: 193, 2006: 130; Wagner 1968: 437 [under the name *A. pallidus* (Puton, 1887)].

*Distribution in Iran*: Abbassi, Baluchestan, Golestan, Hormozgan provinces.

*Distribution outside Iran*: Algeria, Canary Islands, Djibouti, Egypt, Iran, Israel, Italy (?), Libya, Mauretania, Morocco, Pakistan, Saudi Arabia, Sudan, Tunisia, Yemen.

**20) *Byrsinus penicillatus* Wagner, 1964**

*Byrsinus penicillatus* Wagner, 1964: 81 (as new species).

*Material examined*: Khorasan province, Torbat-Jam (881m), 1♂, 2♀♀, September 2003. **New record for Iran**.

*Distribution outside Iran*: Afghanistan, China (Xinjiang, Xizang), Kazakhstan, Mongolia, Turkmenistan, Uzbekistan.

**21) *Byrsinus pilosulus* (Klug, 1845)**

*Cydnus pilosulus* Klug, 1845: [10] (as new species).

*Byrsinus pilosulus*: Lis 1993b: 90 (new combination).

*Iran records*: Hoberlandt 1995: 183 [under the name *Aethus pilosulus* (Klug, 1845), an incorrect spelling]; Linnauori 2004: 285, 2007: 88; Lis 1999: 193, 2006: 130; Seidenstücker, 1957: 73 [under the combination *Aethus pilosulus* Klug].

*Distribution in Iran*: Abbassi, Baluchestan, Fars, Gilan, Hormozgan, Kerman, Khorasan, Sistan, Tehran, Zanjan provinces.

*Distribution outside Iran*: Afghanistan, Algeria, Bulgaria, Canary Islands, Cape Verde Islands, Egypt, France, Germany (?), Greece, Hungary, India, Iraq, Israel, Italy, Libya, Madeira, Malta, Mauretania, Morocco, Pakistan, Romania, Saudi Arabia, Socotra, Serbia and Montenegro, Spain, Sudan, Syria, Tadzhikistan, Tunisia, Turkey, Turkmenistan, Uzbekistan, Yemen.

## 22) *Byrsinus rugosus* (Jakovlev, 1874)

*Cydnus rugosus* Jakovlev, 1874b: 235 (as new species).

*Byrsinus rugosus*: Lis 1993b : 91 (new combination).

*Iran records*: Hoberlandt 1995 : 190 [under the combination *Aethus rugosus* (Jakovlev, 1874)]; Lis 1999: 194, 2006: 130; Modarres-Awal, 1996a: 126, 1997: 71 [both as *Aethus rugosus* (Jakovlev, 1874)]; Wagner, 1968: 437.

*Distribution in Iran*: Abbassi, Hormozgan, Khorasan provinces.

*Distribution outside Iran*: Afghanistan, Armenia (?), Azerbaijan, China (Neimenggu, Xinjiang), Egypt, Iraq, Kazakhstan, Mongolia, Russia (South European Territory), Saudi Arabia, Tadzhikistan, Turkmenistan, Uzbekistan.

*Comment*: Safavi (1959) reported *Aethus flavigornis* (Fabricius) from Iran (Khuzestan province). Because specimen(s) were not available to us, we do not know if the involved species is *Byrsinus flavigornis* (Fabricius, 1794) or *B. rugosus* (Jakovlev, 1874).

## Genus *Fromundiellus* Lis, 1994

### 23) *Fromundiellus latiusculus* (Horváth, 1882)

*Geotomus latiusculus* Horváth, 1882: 217 (as new species).

*Fromundiellus latiusculus*: Lis 1997: 4 (new combination).

*Iran record*: Modarres Awal 2008: 247.

*Distribution in Iran*: Khorasan province.

*Distribution outside Iran*: Afghanistan, Azerbaijan, India (North), Kirgizia, Pakistan, Tadzhikistan, Turkmenistan, Uzbekistan.

## Genus *Fromundus* Distant, 1901

### 24) *Fromundus pygmaeus* (Dallas, 1851)

*Aethus pygmaeus* Dallas, 1851: 120 (as new species).

*Fromundus pygmaeus*: Lis 1994: 181 (new combination).

*Iran records*: Linnavuori 2004: 286; Lis 2006: 132.

*Additional data*: Kermanshah province, Sar-pole-zahab (558), 2♀♀, October 2001.

*Distribution in Iran*: Hormzegan and Kermanshah provinces.

*Distribution outside Iran*: Australia, Bismarck Archipelago (Manus, Mussau, New Ireland, New Britain), Burma, Brunei, Cambodia, Chagos Archipelago, China (Sichuan, Guangdong, Hainan, Guangxi, Yunnan, Jiangxi, Hubei, Taiwan), Christmas Islands, Cocos-Keel-

ing Islands, Fiji, Hawaii, Hong Kong, India (incl. Andamans and Nicobars), Indonesia, Iraq, Israel, Japan, Jordan, Korea, Laos, Malaysia, Maldives, Marquesas, Micronesia, Nepal, New Caledonia, New Hebrides, Pakistan, Papua New Guinea, Philippines, Samoa, Saudi Arabia, Singapore, Sri Lanka, Solomon Islands, Society Islands, Thailand, Vietnam, Yemen.

### Genus *Geotomus* Mulsant & Rey, 1866

#### 25) *Geotomus angustus* Wagner, 1953

*Geotomus elongatus angustus* Wagner, 1953: 471 [as new subspecies of *G. elongatus* (Herrich-Schaeffer, 1840)].

*Geotomus angustus*: Stichel 1961: 692 (upgrading to species rank).

*Iran records*: Hoberlandt 1995: 186 (under the original combination).

*Distribution in Iran*: Abbassi province.

*Distribution outside Iran*: Algeria, Cape Verde Islands, Chad, Libya, Morocco, Spain, Sudan, Tunisia, Turkey.

#### 26) *Geotomus antennatus* Signoret, 1883

*Geotomus antennatus* Signoret, 1883: 56 (as new species).

*Material examined*: Khorasan province, Torbat-Jam (880m), 2♂♂, 2♀♀, July 2001.

#### New record for Iran.

*Distribution outside Iran*: Afghanistan, Israel, Syria, Turkey.

#### 27) *Geotomus brunnipennis* Wagner, 1953

*Geotomus brunnipennis* Wagner, 1953: 466 (as new species).

*Iran records*: Modarres Awal 1996a: 127, 1996b: 106, 1997: 71.

*Distribution in Iran*: Ardabil, Khorasan provinces.

*Distribution outside Iran*: Albania, Austria, Bulgaria, Croatia, France, Greece, Italy, Macedonia, Serbia and Montenegro, Turkey.

#### 28) *Geotomus ciliatitylus*, Signoret, 1881

*Geotomus ciliatitylus* Signoret, 1881b: 652–653 [the synonymy with *Geotomus caucasicus* (Kolenati, 1846), now *Geotomus elongatus* (Herrich-Schaeffer, 1840), by

Horváth 1918: 323, incorrect according to Lis 2006: 133; Hoberlandt's (1995: 187) remark about *G. caucasicus* subspecies distribution, based on Wagner (1953: 472–473), unjustified].

*Iran records:* Safavi 1959: 31 (under the combination *Geotomus caucasicus ciliatitylus*); Modarres-Awal 1997: 71; Signoret 1881b: 652–653 (type from Tehran).

*Distribution in Iran:* Tehran.

*Distribution outside Iran:* Albania, Azerbaijan, Bosnia Herzegovina, Bulgaria, Croatia, Georgia, Greece, Israel, Macedonia, Romania, Russia [South European Territory (?)], Serbia and Montenegro, Syria, Turkey, Turkmenistan, Uzbekistan.

## 29) *Geotomus elongatus* (Herrich-Schaeffer, 1840)

*Cydnus elongatus* Herrich-Schaeffer, 1840: 96 (as new species).

*Cydnus caucasicus* Kolenati 1846: 70 (as new species, the new combination by Horváth 1917: 371 and the synonymy by Kerzhner 2003: 95).

*Geotomus elongatus:* Mulsant and Rey 1866: 38 (new combination).

*Iran records:* Hoberlandt 1995: 186–187 (under the name *G. elongatus* and the junior synonym *G. caucasicus*); Lis 2006: 133; Wagner 1953: 471–472, 475.

*Additional data:* Golestan province, National Park (185m), 1♂, 2♀♀, October 2003.

*Distribution in Iran:* Abbassi, Baluchestan, Bushehr, Golestan, Kerman, Tehran provinces.

*Distribution outside Iran:* Algeria, Armenia, Azerbaidjan, Belgium, Bosnia Herzegovina, Bulgaria, Canary Islands, China (Neimenggu), Croatia, France, Georgia, Germany, Greece, Hungary, Israel, Iraq, Italy, Kazakhstan, Kirgizia, Macedonia, Morocco, Portugal, Romania, Russia (South European Territory), Serbia and Montenegro, Spain, Switzerland, Syria, Tadzhikistan, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan.

## 30) *Geotomus punctulatus* (Costa, 1847)

*Cydnus punctulatus* Costa, 1847: 30.

*Geotomus punctulatus:* Mulsant and Rey 1866: 35 (new combination).

*Iran records:* Hoberlandt 1995: 187; Lis 2006: 133.

*Additional data:* East Azarbaijan province, Arasbaran (792m), 1♀, September 2005.

*Distribution in Iran:* East Azarbaijan, Khorasan, Tehran provinces.

*Distribution outside Iran:* Albania, Algeria, Armenia, Azerbaidjan, Azores Islands, Belgium, Bosnia Herzegovina, Bulgaria, Canary Islands, Cyprus, France, Georgia, Germany, Great Britain, Greece, Hungary, Israel, Italy, Kazakhstan, Libya, Macedonia, Malta, Moldavia, Morocco, Portugal, Romania, Russia (South

European Territory), Serbia and Montenegro, Spain, Syria, Tunisia, Turkey, Turkmenistan, Ukraine.

### **Genus *Macroscytus* Fieber, 1860**

#### **31) *Macroscytus brunneus* (Fabricius, 1803)**

*Cydnus brunneus* Fabricius, 1803: 185 (as new species).

*Macroscytus brunneus*: Fieber 1861: 362 (new combination).

*Iran records*: Hoberlandt 1955: 122, 1995: 185–186; Linnauori 2004: 285, 2007: 88–89; Lis 1999: 208, 2000: 402–404, 2006: 135; Modarres Awal 1996a: 127, 1997: 71, 2008: 247; Safavi 1959: 31; Seidenstücker, 1957: 73, 1958: 5; Wagner 1968: 437.

*Distribution in Iran*: Abbassi, Fars, Gilan, Hormozgan, Kerman, Khorasan, Lorestan, Sistan & Baluchestan, Tehran, Zanjan provinces.

*Distribution outside Iran*: Afghanistan, Albania, Algeria, Azerbaidjan, Bosnia-Herzegovina, Botswana, Cameroon, Canary Islands, Cape Verde Islands, Central African Republic, China (North ?), Congo, Croatia, Cyprus, Egypt, Ethiopia, France, Gambia, Ghana, Greece, Guinea, Iraq, Israel, Italy, Ivory Coast, Jordan, Kazakhstan, Kenya, Lebanon, Libya, Macedonia, Mali, Malta, Morocco, Mozambique, Namibia, Nigeria, Oman, Pakistan, Portugal, Saudi Arabia, Senegal, Socotra, Somalia, South Africa, Serbia, Spain, Sudan, Switzerland, Syria, Tadzhikistan, Tanzania (incl. Zanzibar), Turkey, Turkmenistan, Tunisia, Uganda, Uzbekistan, Yemen, Zaire, Zambia, Zimbabwe.

Comment: Lis (2000) redescribed and illustrated *M. brunneus*.

### **Genus *Microporus* Uhler, 1872**

#### **32) *Microporus nigrita* (Fabricius, 1794)**

*Cimex nigrita* Fabricius, 1794: 123 (as new species).

*Microporus nigrita*: Horváth 1917: 369 (new combination).

*Iran records*: Lis 1993b: 94, 1999: 212, 2006: 137.

*Distribution in Iran*: Gilan Province.

*Distribution outside Iran*: Albania, Armenia, Austria, Azerbaidjan, Belgium, Bulgaria, Byelorussia, Canary Islands, China (Beijing, Guangdong, Neimenggu, Shandong, Shanghai, Tianjin, Xinjiang, Xizang, Yunnan), Croatia, Czech Republic, Denmark (?), Ethiopia, France, Georgia, Germany, Greece, Hungary, India (Kashmir), Iran, Italy, Japan, Kazakhstan, Kirgizia, Korea, Latvia, Lithuania, Luxembourg, Macedonia, Moldavia, Mongolia, Netherlands, Poland, Romania, Russia (European Territory, Siberia, Far East), Senegal (?), Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden,

Switzerland, Tadzhikistan, Tunisia, Turkey, Turkmenistan, Ukraine, United States of America (introduced), Uzbekistan.

**Subfamily Sehirinae Amyot & Serville, 1843**

**Tribe Sehirini Amyot & Serville, 1843**

**Genus *Adomerus* Mulsant & Rey, 1866**

**33) *Adomerus congener* (Jakovlev, 1879).**

*Schirus* [sic!] *congener* Jakovlev, 1879: 25 (as new species).

*Adomerus congener*: Kerzhner and Jaczewski 1964: 825 (new combination).

*Iran records*: Lis 1999: 220, 2006: 139; Modarres-Awal 1987: 19 [under the combination *Sehirus congener* Jak], 1997: 71 [under the subsequent incorrect spelling *Sehirus congenes* (sic)].

*Distribution in Iran*: East Azarbaijan.

*Distribution outside Iran*: Armenia, Azerbaidjan, Georgia, Lebanon, Russia (South European Territory), Turkey.

**Genus *Canthophorus* Mulsant & Rey, 1866**

**34) *Canthophorus coeruleus* (Reuter, 1902)**

*Sehirus coeruleus* Reuter, 1902: 144 (as new species).

*Canthophorus coeruleus*: Asanova 1964: 143 (new combination).

*Iran records*: Brown 1966: 44; Hoberlandt 1955: 122 [under the combination *Sehirus coeruleus*], 1995: 191; Lis 1999: 220–221, 2006: 140; Modarres-Awal 1997: 71; Safavi 1959: 31 [under the combination *Sehirus coeruleus* (Reuter, 1902)]; Wagner 1968: 438.

*Distribution in Iran*: Tehran province.

*Distribution outside Iran*: Kirgizia, Tadzhikistan (?), Turkmenistan, Uzbekistan.

**35) *Canthophorus dubius* (Scopoli, 1763)**

*Cimex dubius* Scopoli, 1763: 121 (as new species).

*Canthophorus (Canthophorus) dubius*: Mulsant and Rey 1866: 63 (new combination).

*Iran records*: Brown, 1966: 44 [under the combination “*Sehirus dubius* Scop.”]; Hoberlandt 1995: 191; Lindberg 1938: 89 [under the combination “*Sehirus dubius* Scop.”];

Lis 1999: 221, 2006: 140; Modarres-Awal 1997: 71; Safavi 1959: 31 [under the combination “*Sehirus dubius* (Scopoli, 1763)”].

*Distribution in Iran:* Hamadan, Kerman, Tehran provinces.

*Distribution outside Iran:* Albania, Algeria (?), Austria, Bosnia Herzegovina, Bulgaria, Croatia, Cyprus (?), Czech Republic, Egypt (?), Finland, France, Germany, Great Britain, Greece, Hungary, Israel, Italy, Lebanon, Liechtenstein, Lithuania (?), Macedonia, Madeira, Moldavia, Poland, Romania, Russia (NW Caucasus), Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria (?), Turkey, Ukraine.

### 36) *Canthophorus melanopterus* (Herrich-Schaeffer, 1835)

*Cydnus melanopterus* Herrich-Schaeffer, 1835: 55 (as new species).

*Canthophorus melanopterus:* Asanova 1964: 143 (new combination).

*Iran records:* Hoberlandt 1995: 189 [under the spelling *Camptoporus melanopterus*]; Linnavuori 2007: 89; Lis 1999: 221–222, 2006: 141; Modarres Awal 1996b: 107 [under the combination *Sehirus melanopterus*], 1997: 71 [under the combinations “*Sehirus dubius* var. *melanoptera* H-S” et “*S. melanopterus* H-S”, treated as the names of two different taxa]; Safavi 1959: 31 [as *Sehirus dubius* var. *melanoptera* (Herrich-Schaeffer, 1835)]; Wagner 1961: 157 [under the combination *Sehirus melanopterus*].

*Distribution in Iran:* Ardabil, Azarbaijan, Fars, Gilan, Golestan, Kurdistan, Tehran provinces.

*Distribution outside Iran:* Albania, Algeria, Armenia, Austria, Azerbaijan, Bosnia Herzegovina, Bulgaria, Canary Islands, China (Beijing ?), Croatia, Cyprus, Czech Republic, Egypt, Georgia, Great Britain, Greece, Hungary, Iraq, Israel, Italy, Jordan, Kazakhstan, Libya, Macedonia, Malta, Moldavia, Morocco, Portugal, Romania, Russia (South European Territory), Serbia and Montenegro, Slovakia, Slovenia, Spain, Syria, Tadzhikistan, Tunisia, Turkey, Ukraine.

### 37) *Canthophorus wagneri* Asanova, 1964

*Canthophorus wagneri* Asanova, 1964: 139.

*Material examined:* West Azerbaijan province, Seroo (1612m), 2♀♀, August 2003.

#### New record for Iran.

*Distribution outside Iran:* Armenia, Azerbaijan, Georgia, Russia (South European Territory), Turkmenistan, Turkey.

**Genus *Crocistethus* Fieber, 1860**

**38) *Crocistethus waltlianus* (Fieber, 1837)**

*Cydnus waltlianus* Fieber, 1837: 352 (as new species).

*Crocistethus waltlianus*: Stichel 1961: 678 (new combination).

*Material examined*: West Azerbaijan province, Piranshahr (1465m), 2♂♂, August 2004. **New record for Iran.**

*Distribution outside Iran*: Algeria, Canary Islands, Cyprus, Egypt, France, Greece, Iraq, Israel, Italy, Jordan, Malta, Morocco, Portugal, Serbia, Spain, Syria, Tunisia, Turkey.

**Genus *Exosehirus* Wagner, 1963**

**39) *Exosehirus marginatus* (Signoret, 1881b)**

*Adomerus marginatus* Signoret, 1881b: 656.

*Exosehirus marginatus*: Linnauori 1984: 2 (new combination, in the framework of *E. sargon* description).

*Iran records*: Modarres Awal 1996a: 127 [under the combination *Sehirus marginatus*], 1997: 71.

*Additional data*: West Azarbaijan province, Maco (1730m), 1♀, September 2000.

*Distribution in Iran*: Khorasan and West Azerbaijan provinces.

*Distribution outside Iran*: Syria, Turkey (type locality: Taurus Mt).

**40) *Exosehirus validus* (Jakovlev, 1877)**

*Gnathoconus validus* Jakovlev, 1877: 76 (as new species).

*Exosehirus validus*: Wagner 1963: 107 (new combination).

*Iran records*: Hoberlandt 2005: 189; Lis 1999: 223, 2006: 142; Modarres Awal 2008: 247.

*Distribution in Iran*: Khorasan and Lorestan provinces; Semnan province: Shahkuh, near Shahrud (type locality).

*Distribution outside Iran*: Afghanistan, Iraq, Kazakhstan, Kirgizia, Tadzhikistan, Turkmenistan, Uzbekistan.

**Genus *Legnotus* Schiødte, 1848****41) *Legnotus limbosus* (Geoffroy, 1785)**

*Cimex limbosus* Geoffroy in Fourcroy, 1785: 217 (as new species).

*Legnotus limbosus*: Stichel 1935: 362 (new combination).

*Iran records*: Hoberlandt 1995: 189; Lis 2006: 143; Linnauori 2007: 89.

*Distribution in Iran*: Khorasan and Tehran provinces.

*Distribution outside Iran*: Albania, Algeria, Armenia, Austria, Azerbaidjan, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Great Britain, Greece, Hungary, Israel, Italy, Kazakhstan, Lithuania, Luxembourg, Macedonia, Moldavia, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Turkey, Ukraine, Uzbekistan.

**42) *Legnotus picipes* (Fallén, 1807)**

*Cydnus picipes* Fallén, 1807: 54 (as new species).

*Legnotus picipes*: Horváth 1917: 372 (new combination).

*Iran records*: Hoberlandt 1995: 189; Lis 2006: 143.

*Distribution in Iran*: Khorasan and Tehran provinces.

*Distribution outside Iran*: Albania, Algeria, Armenia, Austria, Azerbaidjan, Belgium, Bosnia Herzegovina, ?Bulgaria, Byelorussia, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Israel, Italy, Kazakhstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Moldavia, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Tunisia, Turkey, Ukraine, Uzbekistan.

**Genus *Ochetostethus* Fieber, 1860****43) *Ochetostethus heissi* Magnien, 2006**

*Ochetostethus heissi* Magnien, 2006: 513–516 (as new species).

*Iran records*: Magnien 2006: 513–514; Linnauori 2007: 89.

*Distribution in Iran*: Gilan and Zanjan provinces.

*Distribution outside Iran*: Cyprus, Israel, Greece, Turkey.

**44) *Ochetostethus nanus* (Herrich-Schaeffer, 1834)**

*Cydnus nanus* Herrich-Schaeffer, 1834: plate 24 (as new species).

*Ochetostethus nanus*: Mulsant and Rey 1866: 76 (new combination).

*Iran records*: Modarres Awal 1996a: 127, 1997: 71.

*Distribution in Iran*: Khorasan province.

*Distribution outside Iran*: Belgium, France, Portugal (?), Spain.

*Comments*: This is a doubtful record. The report by Modarres Awal (1996) probably refers to one of the other species of *Ochetostethus*. This would also be the case for all records from North Africa and Central or Eastern Europe (Lis 2006: 144).

**45) *Ochetostethus opacus* (Scholtz, 1847)**

*Cydnus opacus* Scholtz, 1847: 158 (as new species).

*Ochetostethus opacus*: Kerzhner 1976: 36 (new combination).

*Iran records*: Hoberlandt 1995: 191; Kerzhner 1976: 36 (without exact locality); Linnavuori 2007: 89; Lis 1999: 226, 2006: 144; Magnien 2006: 515 (without exact locality); Modarres Awal 1996b: 107, 1997: 71.

*Distribution in Iran*: Ardabil, Gilan and Tehran provinces.

*Distribution outside Iran*: Afghanistan, Albania, Armenia, Austria, Azerbaijan, Bosnia Herzegovina, Bulgaria, Canary Islands, China (North), Croatia, Cyprus, Czech Republic, Finland, Georgia, Germany, Greece, Hungary, Iraq, Israel, Italy, Kazakhstan, Kirgizia, Latvia, Lebanon, Liechtenstein, Lithuania, Macedonia, Moldavia, Norway, Poland, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Switzerland, Syria, Tadzhikistan, Turkey, Ukraine, Uzbekistan.

**46) *Ochetostethus sahlbergi* Wagner, 1952**

*Ochetostethus sahlbergi* Wagner, 1952: 42 (as new species).

*Iran records*: Hoberlandt 1995: 190.

*Additional data*: West Azerbaijan, Ourmieh (1370m), 1♂, 3♀, August 2003.

*Distribution in Iran*: Tehran and West Azerbaijan provinces.

*Distribution outside Iran*: Afghanistan (?), Egypt, Israel, Jordan, Lebanon, Syria, Turkey.

**47) *Ochetostethus tarsalis* Mulsant & Rey, 1852**

*Cydnus tarsalis* Mulsant & Rey, 1852: 79 (as new species).

*Ochetostethus tarsalis*: Lethierry & Severin 1893: 80 (new combination).

*Iran records*: Hoberlandt 1995: 190.

*Distribution in Iran*: Fars and Tehran provinces.

*Distribution outside Iran*: Algeria, Canary Islands, France, Italy, Libya, Morocco, Saudi Arabia, Spain, Tunisia.

**Genus *Sehirus* Amyot & Serville, 1843****48) *Sehirus cypriacus* Dohrn, 1860**

*Sehirus cypriacus* Dohrn, 1860: 101 (as new species).

*Material examined*: West Azerbaijan province, Naghadeh (1364m), 1♀, June 2002.

**New record for Iran.**

*Distribution outside Iran*: Cyprus, Israel, Jordan, Syria, Turkey.

**49) *Sehirus dissimilis* Horváth, 1919**

*Sehirus dissimilis* Horváth, 1919: 267 (as new species).

*Material examined*: West Azerbaijan province, Oshnavieh (1454m), 1♂, 2♀♀, June 2002. **New record for Iran.**

*Distribution outside Iran*: Turkey.

**50) *Sehirus luctuosus* Mulsant & Rey, 1866**

?*Cimex niger spinipes* De Geer, 1773: 269 [unavailable non binominal name; the synonymy with *S. luctuosus* by Reuter (1888); the synonymy with *Cydnus aterrimus* (Forster, 1771) by Amyot, 1845 seems doubtful since Reuter (1888) did examine De Geer's types (Lis 2006 contra 1999)].

*Sehirus luctuosus* Mulsant and Rey 1866: 52 (new combination).

*Material examined*: East Azerbaijan province, Arasbaran (826m), 2♂♂, 4♀♀, July 2005. **New record for Iran.**

*Distribution outside Iran*: Albania, Algeria, Armenia, Austria, Azerbaijan, Belgium, Bosnia Herzegovina, Bulgaria, Byelorussia, Croatia, Czech Republic, Den-

mark, Estonia, Finland, France, Georgia, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Kazakhstan, Kirgizia, Latvia, Lithuania, Luxembourg, Macedonia, Moldavia, Mongolia, Netherlands, Norway, Poland, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tadzhikistan, Turkey, Ukraine.

### 51) *Sehirus morio* (Linnaeus, 1761)

*Cimex morio* Linnaeus, 1761: 250 (as new species).

*Sehirus morio*: Amyot and Serville 1843: 96 (new combination).

*Iran records*: Modarres Awal 1987: 19, 1997: 71; Linnauori 2007: 89.

*Distribution in Iran*: Ardabil and East Azerbaijan provinces.

*Distribution outside Iran*: Albania, Algeria, Armenia, Austria, Azerbaidjan, Belgium, Bosnia Herzegovina, Bulgaria, Byelorussia, Canary Islands, Croatia, Cyprus, Czech Republic, Denmark, France, Georgia, Germany, Greece, Hungary, Italy, Kazakhstan, Kirgizia, Latvia (?), Libya, Lithuania, Luxembourg, Macedonia, Malta, Moldavia, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Tadzhikistan, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan.

### 52) *Sehirus ovatus* (Herrich-Schaeffer, 1840)

*Cydnus ovatus* Herrich-Schaeffer, 1840: 96 (as new species).

*Sehirus ovatus*: Fieber 1861: 367 (new combination).

*Material examined*: Ardabil province, Germi (764m), 1♂, 3♀♀, September 2004.

#### New Record for Iran.

*Distribution outside Iran*: Armenia, Austria, Azerbaijan, Bulgaria, Croatia, Czech Republic, Georgia, Greece, Hungary, Israel, Italy, Kazakhstan, Moldavia, Romania, Russia (Central and South European Territory), Slovakia, Syria, Turkey, Ukraine.

### 53) *Sehirus parens* Mulsant & Rey, 1866

*Sehirus parens* Mulsant and Rey, 1866: 52 (as new species).

*Material examined*: Khorasan province, Birjand (1434m), 2♀♀, April 2003. **New Record for Iran.**

*Distribution outside Iran:* Afghanistan, Azerbaijan, China (Xinjiang), Czech Republic, Hungary, Kazakhstan, Kirgizia, Romania, Russia (South European Territory, West and East Siberia), Slovakia, Syria, Tadzhikistan, Ukraine.

#### 54) *Sehirus planiceps* Horváth, 1895

*Sehirus planiceps* Horváth, 1895: 128 (as new species; in key).

*Material examined:* Mazandaran province, Galogah (82m), 1♂, 1♀, October 2001.

##### New Record for Iran.

*Distribution outside Iran:* Caucasus: Georgia and Russia.

#### 55) *Sehirus robustus* Horváth, 1895

*Sehirus robustus* Horváth, 1895: 129, 130 (as new species; in key).

*Iran records:* Hoberlandt 1995: 191; Lis 1999: 228, 2006: 146; Wagner 1968: 438.

*Distribution in Iran:* Gorgan and Mazandaran provinces.

*Distribution outside Iran:* Armenia, Azerbaijan, Georgia, Iraq, Turkey.

### Genus *Tritomegas* Amyot and Serville, 1843

#### 56) *Tritomegas bicolor* (Linnaeus, 1758)

*Cimex bicolor* Linnaeus, 1758: 446 (as new species).

*Tritomegas bicolor:* Amyot & Serville 1843: 98 (new combination).

*Iran record:* Linnavuori 2007: 90.

*Additional data:* Ardabil province, Pars-Abad (110m), 3♀♀, September 2004.

*Distribution in Iran:* Ardabil and Gilan provinces.

*Distribution outside Iran:* Algeria, Armenia, Austria, Azerbaidjan, Belgium, Bosnia Herzegovina, Bulgaria, Byelorussia, China (Liaoning), Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Great Britain, Greece, Hungary, Israel, Italy, Kazakhstan, Kirgizia, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Moldavia, Mongolia, Morocco, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Turkey, Ukraine, Uzbekistan.

**57) *Tritomegas delagrangei* (Puton, 1888)**

*Sehirus bicolor* var. *delagrangei* Puton, 1888: 256 (as new var.).

*Sehirus delagrangei*: Horváth 1901: 471 (upgrading to species rank).

*Tritomegas delagrangei*: Hoberlandt 1956: 212 (new combination).

*Material examined*: East Azarbaijan province, Maragheh (1495m), 1♂, June 1999.

**New record for Iran.**

*Distribution outside Iran*: Azerbaijan, Israel, Lebanon, Syria, Turkey.

**58) *Tritomegas sexmaculatus* Rambur, 1839**

*Cydnus sexmaculatus* Rambur, 1839: 110 (as new species).

*Canthophorus (Tritomegas) sexmaculatus*: Mulsant and Rey 1866: 55 (new combination).

*Iran records*: Hassanzadeh et al. 2009: 529; Linnauori 2007: 90; Lis 1999: 229, 2006: 147; Modarres Awal 1996a: 128, 1997: 71.

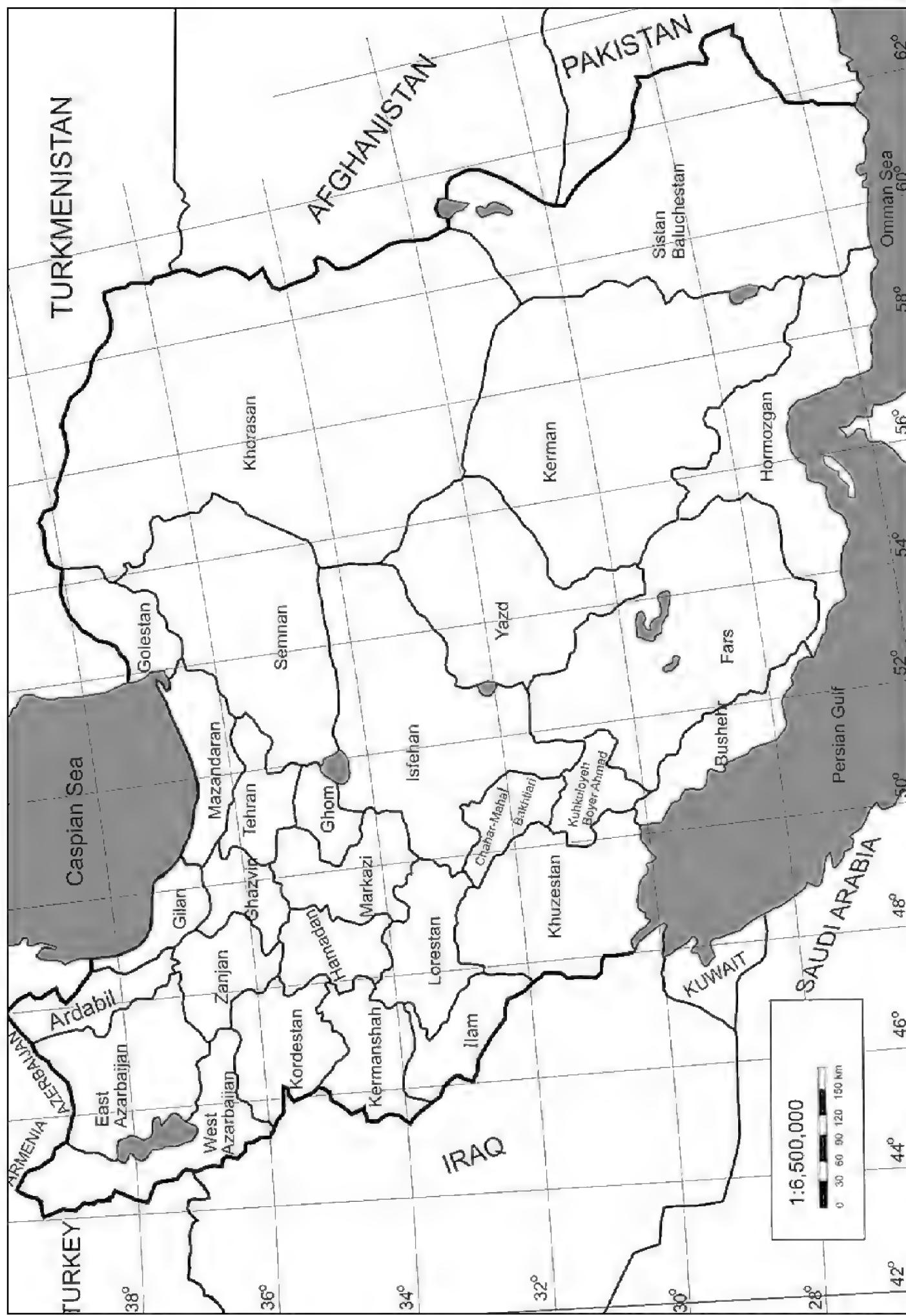
*Distribution in Iran*: Khorasan and Tehran provinces.

*Distribution outside Iran*: Albania, Armenia, Austria, Azerbaijan, Bosnia Herzegovina, Bulgaria, Croatia, Czech Republic, France, Georgia, Germany, Greece, Hungary, Italy, Liechtenstein, Macedonia, Moldavia, Netherlands, Poland, Portugal, Romania, Russia (Central and South European Territory), Serbia and Montenegro, Slovakia, Slovenia, Spain, Switzerland, Turkey, Ukraine.

## Discussion

Fifty-eight species of burrower bugs are reported from Iran in the present checklist: one Amnestinae, one Cephalocteinae, and fifty-six Cydninae (three Amaurocorini, two Cydnini, twenty-five Geotomini and twenty-six Sehirini), i.e. about 9% of the World fauna. Of those, fourteen are newly recorded from the country:

- (a) one Cephalocteinae Scaptocorini: *Stibaropus henkei* (Jakovlev, 1874);
- (b) four Cydninae Geotomini: *Byrsinus fossor* (Mulsant & Rey, 1866), *Byrsinus nigroscutellatus* (Montandon, 1900), *Byrsinus penicillatus* Wagner, 1964 and *Geotomus antennatus* Signoret, 1883;
- (c) and nine Cydninae Sehirini: *Canthophorus wagneri* Asanova, 1964, *Crocistethus waltlianus* (Fieber, 1837), *Sehirus cypriacus* Dohrn, 1860, *Sehirus dissimilis* Horváth, 1919, *Sehirus luctuosus* Mulsant & Rey, 1866, *Sehirus ovatus* (Herrich-Schaeffer, 1840), *Sehirus parens* Mulsant & Rey, 1866, *Sehirus planiceps* Horváth, 1895 and *Tritomegas delagrangei* (Puton, 1888).



**Figure 1.** Map of Iran with boundaries of provinces.

One species is removed of the Iranian faunal list: *Byrsinus minor* Wagner, 1964, an erroneous mention according to Lis (2006: 129). The presence in Iran of *Byrsinus discus* Jakovlev, 1906 needs confirmation.

The number of species probably will increase in the future because Iran is a large, poorly explored, country, incorporating various geographical regions (Fig. 1), climates, and vegetation zones. We are convinced that additional field work will provide numerous new and interesting records.

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